

TWO NEW SPECIES OF SUBGENUS *RHAMPHOMYIA* FROM CHINA (DIPTERA, EMPIDIDAE)

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Abstract Two new species of the subgenus *Rhamphomyia* from China are described: *Rhamphomyia (Rhamphomyia) flavella* sp. nov. and *Rhamphomyia (Rhamphomyia) projeda* sp. nov. A key to the species of the subgenus from China is presented.

Key words Diptera, Empididae, *Rhamphomyia*, new species, China

Rhamphomyia is a large subgenus of the genus *Rhamphomyia* with 121 known species in the Palearctic and Oriental Regions (Yang *et al.*, 2007). It is characterized by vein A complete; axillary angle acute and episternum haired (Collin, 1961). Only three species have been known to occur in China. Here two new species are added to the fauna of China. The type specimens are deposited in the Entomological Museum of China Agricultural University, Beijing. The following abbreviations are used: *ac* = acrostichal, *ad* = anterodorsal, *av* = anteroventral, *dc* = dorsocentral, *h* = humeral, *npl* = notopleural, *oc* = ocellar, *pd* = posterodorsal, *presc* = prescutellar, *psa* = postalar, *pv* = posteroventral, *sa* = supraalar, *sc* = scutellar.

Key to species (males) of *Rhamphomyia* from China

1. Coxae yellow 2
Coxae black 4
2. Femora with blackish tips; tips of fore and mid tibiae and apical portion of hind tibia blackish 3
Only hind femur narrowly brown at tip; tibiae yellow *R. flavipes*
3. Hind tibia yellow with apical portion blackish; hind tarsomere 1 distinctly thickened; male cercus very large with deeply furcated apex *R. spinulosa*
Hind tibia dark brown to black with yellow base; hind tarsomere 1 weakly thickened; male cercus long narrow with small subapical dorsal incision *R. flavella* sp. nov.
4. All femora yellow, fore tibia black but yellow at base; mid and hind tibiae uniformly yellow; wing slightly tinged brownish *R. klapperichi*
Legs entirely black; wing gray *R. projeda* sp. nov.

Rhamphomyia (Rhamphomyia) flavella sp. nov. (Figs 1-2)

Male. Body length 7.3 mm, wing length 6.5 mm.

Head black with pale gray pollen. Eyes dark yellow, contiguous on frons with enlarged dorsal facets. Hairs and bristles on head black; lower occiput with pale hairs. Ocellar tubercle weak with 2 *oc* and 2 posterior hairs. Antenna black; scape 2 times longer

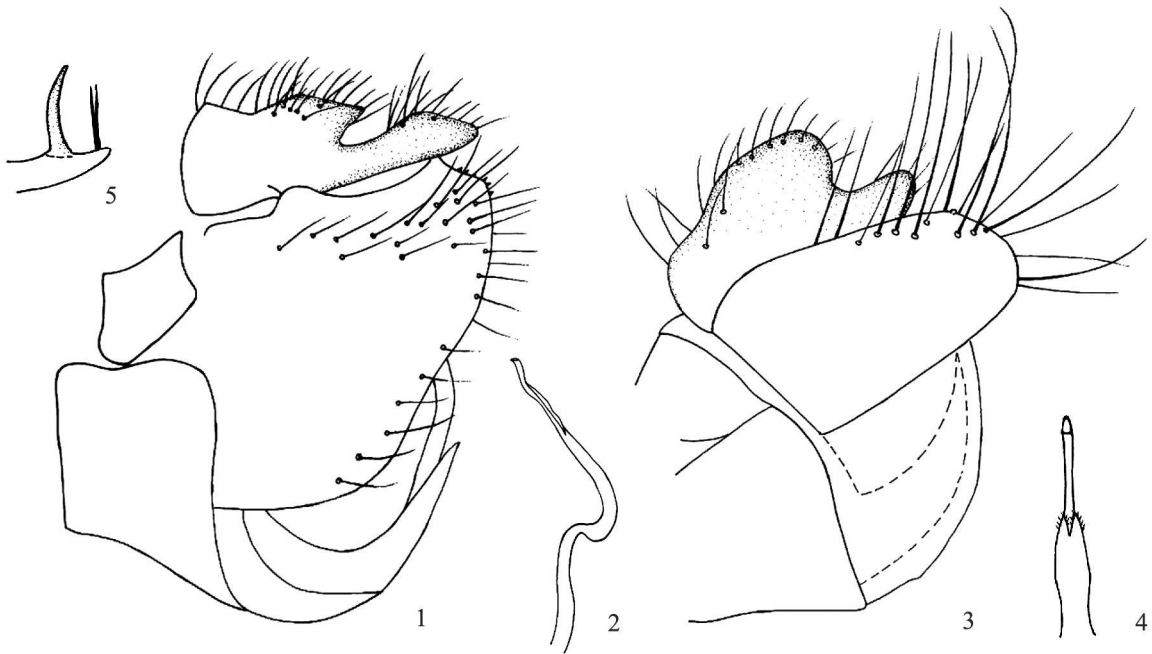
than pedicel with hairs; pedicel with circlet of black apical hairs. First flagellomere long, nearly cylindrical, 5 times longer than wide; style black, 0.25 times as long as first flagellomere. Proboscis 0.8 times as long as head height. Brownish yellow except black dorsal spine with black hairs; palpus short and small, blackish with blackish hairs.

Thorax black with pale gray pollen; stemopleuron with postero-upper portion dark brownish yellow. Hairs and bristles on thorax black except scutum with some pale hairs antero-laterally. Hairs and bristles on scutum sparse; humerus with pale hairs, *h* indistinct; 1 long strong *npl*, *ac* and *dc* hair-like, *ac* very sparse and nearly biserrate, *dc* irregularly biserrate (2 posterior *dc* relatively long); 1 weak *sa*, 1 *psa*, *presc* absent; scutellum with two pairs of *sc*, lateral *sc* 1/4 of apical *sc*. Laterotergite with long pale hairs. Pronotum laterally with pale hairs; prosternum with pale hairs laterally. Legs yellow; all coxae yellow; femora with black apices; apices of fore and mid tibiae black; hind tibia dark brown to black with yellow base; tarsi black. Hairs and bristles on legs black. Femora subequal in thickness. Fore femur mostly bare ventrally with one row of very short hair-like *av*. Mid femur more or less with two rows of *v* (*av* short spine-like but biserrate and long bristle-like at base, *pv* longer than *av*). Hind femur apically with 4-5 long *ad*, ventrally mostly bare with 4-5 mostly short *av* (only 1 apical *av* long). Fore tibia apically with 4 bristles; tibia and tarsus micropubescent ventrally. Mid tibia with 4 long strong *ad* except 1 basal *ad* short and two rows of dense *v* (*av* spine-like); apically with 1 weak *pd* and 3 spine-like *v*. Hind tibia with two rows of long *d*, one row of very short dense spine-like *av* and one row of long dense hair-like *pv*, apically with 1 long *ad* and 1 long *pd*. Hind tarsomeres

The research was funded by the National Natural Science Foundation of China (30770259), the Doctoral Program of Higher Education of China (20090008110016) and Chinese Universities Scientific Fund (2009-02-08).

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Received 11 Mar 2010; accepted 12 May 2010



Figs 1-2 *Rhamphomyia* (*Rhamphomyia*) *flavella* sp. nov. (male). 3-5 *Rhamphomyia* (*Rhamphomyia*) *projecta* sp. nov. (male). 1, 3 Genitalia lateral view. 2, 4. Phallus lateral or posterior view. 5. Apical inner process of cercus dorsal view.

1-4 with two rows of long α ; hind tarsomere 1 weakly thickened 2.4 times longer than tarsomere 2. Wing with large anal lobe and acute axillary angle; nearly hyaline but apically grayish; dark brown stigma long and narrow; veins dark brown; anal vein weak medially, reaching wing posterior margin. Halter pale yellow.

Abdomen nearly straight; blackish with black hypopygium, pale gray pollinose. Hairs and bristles on abdomen black; tergites 1-3 with long pale hairs laterally; sternite 1 bare; sternites 2-6 with pale hairs except sternite 6 with black bristles at posterior margin. Male genitalia (Figs 1-2). Epandrial lobe much wider than cercus; apically narrowed; cercus long and narrow, with subapical dorsal incision.

Holotype ♂, Hubei Shennongjia Dalongtan, 29 June 2009, LU Qi-Fei.

Remarks. The new species is somewhat similar to *spinulosa*, but can be easily separated from the latter by the hind tibia dark brown to black with yellow base, hind tarsomere 1 weakly thickened and male cercus narrow with a small subapical dorsal incision (Yang *et al.*, 2010).

Etymology. The specific name refers to the yellow base of the hind tibia.

Rhamphomyia (*Rhamphomyia*) *projecta* sp. nov.
(Figs 3-5)

Male. Body length 7.0-7.5 mm, wing length 6.0-6.2 mm.

Head black with pale gray pollen. Eyes dark

yellow, contiguous on frons with enlarged dorsal facets. Hairs and bristles on head black, except those on postero-ventral surface pale. Ocellar tubercle distinct with 2 *oc* and 2 posterior hairs. Antenna black; scape 2.0 times longer than pedicel with black hairs throughout; pedicel with circlet of black apical hairs; first flagellomere nearly long conical, 5 times longer than wide; style black, 0.4 times as long as first flagellomere. Proboscis 0.95 times as long as head height; brownish with black dorsal spine with black hairs; palpus short and small blackish with black hairs.

Thorax black with grayish pollen. Hairs and bristles on thorax black. Hairs and bristles on scutum sparse; humerus with 2 short hairs and 1 long *h*; 2 strong *npl* (anterior *npl* short); *acr* very sparse hair-like irregularly biseriolate (posteriormost pair slightly long); *dc* irregularly biseriolate hair-like slightly longer than *acr* (2-3 posterior *dc* long); 1 long strong *sa*, 1 long strong *psa*, 1 long strong *presc*; scutellum with two pairs of *sc*; lateral *sc* short thin; apical *sc* long strong. Propleuron with pale hairs; prosternum with long pale hairs laterally. Laterotergite with long hairs mostly pale. Legs black. Hairs and bristles on legs black. Femora subequal in thickness. Fore femur mostly bare ventrally with one row of hair-like *av* shorter than femur thickness. Mid femur with two rows of dense spine-like *v* (*pv* longer than *av*). Hind femur mostly bare ventrally with one row of short strong *av* (shorter than femur thickness) on basal 1/3. Fore tibia apically with 3 short bristles; tarsus

micropubescent ventrally. Mid tibia with 4 long *ad* (2 apical *ad* relatively long and strong) and two rows of dense *v* (*av* spine-like); apically with 1 *pd*, 1 *av* and 1 *pv* (*v* spine-like). Hind tibia with 5 *ad* (1 *ad* near apex strong), one row of very short dense spine-like *av* and one row of long dense hair-like *pv*, apically with 1 long *ad* and 1 long *pd*. Hind tarsomeres 1-4 with long dorsal hairs, apically with 1 *ad* and 1 *pd* very long, hind tarsomere 1 not thickened, 3 times longer than tarsomere 2, with 2 *ad*. Wing gray, with large anal lobe and acute axillary angle, dark brown stigma long and narrow, veins dark brown, anal vein thin, complete, reaching wing posterior margin. Halter dark brown with dark yellow knob.

Abdomen nearly straight, black. Hairs and bristles on abdomen black, tergites 1-2 with long pale hairs laterally, tergites 3-5 with mostly pale long hairs at lateral margin, sternite 1 bare, sternites 2-5 with pale hairs. Male genitalia (Figs 3-5): Epandrial lobe slightly wider than cercus, apically obtuse, with long

bristles, cercus rather wide with apical incision.

Holotype ♂, Hubei Shennongjia Zhangbahe, 3 July 2009, LIU Qi-Fei. Paratypes 3 males, same data as holotype.

Remarks. The new species is somewhat similar to *klapperichi*, but may be separated from the latter by the legs entirely black and wing gray (Frey, 1953).

Etymology. The specific name refers to the inner process of the cercus.

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中国猎舞虻亚属二新种（双翅目，舞虻科）

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摘 要 记述我国猎舞虻亚属 2 新种。模式标本保存在中国农业大学昆虫博物馆。

基黄猎舞虻，新种 *Rhamphomyia* (*Rhamphomyia*) *flavella* sp. nov. (图 1~2)

新种与小刺猎舞虻 *Rhamphomyia* (*Rhamphomyia*) *spinulosa* 相近似，但后足胫节基部黄色，基跗节稍加粗，尾须窄且背部亚端有凹缺。

正模 ♂，湖北神农架大龙潭，2009-06-29，刘启飞采。

关键词 双翅目，舞虻科，猎舞虻属，新种，中国。

中图分类号 Q969.451.2

词源：种名意指后足胫节基部黄色。

内突猎舞虻，新种 *Rhamphomyia* (*Rhamphomyia*) *projecta* sp. nov. (图 3~5)

新种与克氏猎舞虻 *Rhamphomyia* (*Rhamphomyia*) *klapperichi* 相近似，但足全黑色，翅灰色。

正模 ♂，湖北神农架漳宝河，2009-07-03，刘启飞采。

副模 3♂♂，同正模。

词源：种名意指尾须的内突。

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